The question will be based on the concept of the following syllabus

CLASS X - MATHS

CLASS – X

1. **Real Numbers**: Euclid’s Division Lemma, The Fundamental Theorem of Arithmetic, Revisiting Irrational Numbers, Revisiting Rational Numbers and Their Decimal Expansions

2. **Polynomials**: Geometrical Meaning of the Zeros of a Polynomial, Relationship between Zeros and Coefficients of a Polynomial, Division Algorithm for Polynomials

3. **Pair of Linear Equations in Two Variables**: Pair of Linear Equations in Two Variables, Graphical Method of Solution of a Pair of Linear Equations, Algebraic Methods of Solving a Pair of Linear Equations, Substitution Method, Elimination Method, Cross-Multiplication Method, Equations Reducible to a Pair of Linear Equations in Two Variables.

4. **Quadratic Equations**: Quadratic Equations, Solution of a Quadratic Equation by Factorisation, Solution of a Quadratic Equation by Completing the Square, Nature of Roots

5. **Arithmetic Progressions**: Arithmetic Progressions, nth Term of an AP, Sum of First n Terms of an AP

6. **Triangles**: Similar Figures, Similarity of Triangles, Criteria for Similarity of Triangles, Areas of Similar Triangles, Pythagoras Theorem

7. **Coordinate Geometry**: Distance Formula, Section Formula, Area of a Triangle

8. **Introduction to Trigonometry**: Trigonometric Ratios, Trigonometric Ratios of Some Specific Angles, Trigonometric Ratios of Complementary Angles, Trigonometric Identities

9. **Some Applications of Trigonometry**: Heights and Distances

10. **Circles**: Tangent to a Circle, Number of Tangents from a Point on a Circle

11. **Constructions**: Division of a Line Segment, Construction of Tangents to a Circle

12. **Areas Related to Circles**: Perimeter and Area of a Circle — A Review, Areas of Sector and Segment of a Circle, Areas of Combinations of Plane Figures

13. **Surface Areas and Volumes**: Surface Area of a Combination of Solids, Volume of a Combination of Solids, Conversion of Solid from One Shape to Another, Frustum of a Cone

14. **Statistics**: Mean of Grouped Data, Mode of Grouped Data, Median of Grouped Data, Graphical Representation of Cumulative Frequency Distribution

15. **Probability**: Probability — A Theoretical Approach